

**BUILDING MATERIALS EVALUATION COMMISSION  
(BMEC)  
AUTHORIZATION REPORT**

**DATE OF AUTHORIZATION**  
**BMEC REFERENCE**  
**BMEC APPLICATION #**

**July 26, 2001**  
**BMEC # 01-11-263**  
**BMEC # A2001- 13**

**TYCO FIRE PRODUCTS  
CENTRAL MODEL WS WINDOW SPRINKLER**

**1. Applicant**

Tyco Fire Products  
1467 Elmwood Avenue  
Cranston, Rhode Island  
USA 02910

Tel: (401) 781-8220  
Fax: (401) 781-8868

**2. Manufacturing Facilities**

Tyco Fire Products  
451 North Cannon Avenue  
Lansdale, Pennsylvania  
USA 19446

**3. Description**

The Central Model WS Window Sprinkler system is a sprinkler-protected window system consisting of a window assembly and a sprinkler system designed to protect the window assembly by spraying water on the glazing. The window assembly consists of fixed non operable glazing installed in metal frames. The glazing may incorporate vertical mullions or butt joints without mullions. Windows assemblies with horizontal mullions are not eligible for sprinkler protection. Maximum dimension of sprinkler-protected window assemblies, along with details of the frames and glazing materials to be used, are indicated in individual listings.

**4. Authorization Requested**

The applicant sought authorization for the use of Central Model WS Window Sprinkler system manufactured by Tyco Fire Products as a 2 hour fire resistance rating equivalent to the level of performance required in Subsection 3.1.7. of the 1997 Ontario Building Code (OBC) as amended.

## 5. Assessment

Reports, assessments and information provided by the applicant indicate that if the Central Model WS Window Sprinkler system is designed and installed in accordance with the manufacturer's instructions and limitations; the Underwriters Laboratories of Canada Listing, ULC/ORD-C263.1-99; and the Specific Terms and Conditions stated in this Authorization, then the level of performance required by the OBC will be provided.

Reports, assessments and information reviewed included the following:

1. Canadian Construction Materials Centre (CCMC), Evaluation Report 12752-R: Issued 24 June 1996, Revised 07 January 1997.
2. Ruling of The Minister of Municipal Affairs and Housing: No. 97-01-49(12572)R.
3. Manufacturer's information Central WS 3-0: Model WS™ Specific Application Window Sprinklers™.
4. Underwriters Laboratories Inc. File Ex683, project 95NK26512, dated 07 February 1996, "Report on Automatic Sprinklers, Central Sprinklers Corp., Lansdale, Pennsylvania."
5. Underwriters Laboratories Inc. File Ex683, project 94NK27353, dated 22 August 1995, "Report on Special Service Investigation on Automatic Sprinklers Used on Windows, for Central Sprinklers Corp., Lansdale, Pennsylvania."
6. Underwriters Laboratories of Canada listed classification titled "Window Sprinklers" Guide No. 2257.
7. Underwriters Laboratories of Canada, certification Bulletin No. 99-33, dated 25 October 1999.
8. Underwriters Laboratories of Canada, ULC/ORD-C263.1-99 "Window - Protected Window Systems". First Edition October 1999.
9. Technical Background Information (TBI) Memo relating to Central Model WS Window Sprinkler system dated 27 June 2001.

## 6. Authorization

The Central Model WS Window Sprinkler system is authorized subject to the following terms and conditions:

### A. SPECIFIC TERMS AND CONDITIONS:

1. This authorization is valid only for Central Model WS Window Sprinkler system.
2. The design and general review of the Central Model WS Window Sprinkler system shall be in accordance with ULC/ORD-C263.1-99, Appendix A, Installation Guidelines.
3. The design and general review of the Central Model WS Window Sprinkler system shall be carried out by a Professional Engineer as defined in the *Professional Engineers Act*, (Ontario). The Professional Engineer shall provide the chief building official with a document certifying that the installation conforms with this authorization.
4. The Central Model WS Window Sprinkler system shall incorporate ULC Listed sprinkler heads: model WS 3-01, 5.6 K-factor - Quick Response, SIN C3388 - Horizontal Sidewall and SIN C3488 Pendant Vertical Sidewall.
5. The Central Model WS Window Sprinkler system shall not be used in a fire wall.
6. The Central Model WS Window Sprinkler system shall not be used in High Hazard Industrial Occupancies, Group F, Division 1.
7. The Central Model WS Window Sprinkler system shall not be used on any part of an exit serving a floor area subject to the requirements of OBC Subsection 3.2.6.
8. The Central Model WS Window Sprinkler system shall not be used on any part of an exit serving Care and Detention Occupancies, Group B; or Residential Occupancies, Group C.
9. Where the Central Model WS Window Sprinkler system is used to provide fire-resistance rating of exit fire separations:
  - (a) the building shall be sprinklered, and
  - (b) the exits with a Central Model WS Window Sprinkler system shall not comprise more than one half of the required number of exits from any floor area.

## B. GENERAL CONDITIONS

1. The use of the Central Model WS Window Sprinkler system must comply with the *Building Code Act, 1992* as amended or re-enacted from time to time and except as specifically authorized herein, with the OBC as amended or remade from time to time.
2. A copy of this Authorization shall accompany each application for a building permit and shall be maintained on the site of the construction with the building permit.
3. The Applicant named in Part 1 hereof shall promptly notify the BMEC of:
  - (a) the failure of the applicant, or of the material, system or building design that is the subject matter of this authorization, to comply with any of the Specific Terms and Conditions set out in 6. A. above; or
  - (b) the occurrence of any of the events described in Specific Terms and Conditions 6. B. 4. (a) and (b) (ii) below.
4. The BMEC may amend or revoke this Authorization where it determines that:
  - (a) any change has been made to:
    - (i) the material, system or building design that is the subject matter of this authorization;
    - (ii) the address of the applicant specified in Part 1 of this authorization; or,
    - (iii) the ownership of the applicant specified in Part 1 of this authorization.
  - (b) the use of the material, system or building design authorized herein;
    - (i) does not comply with the *Building Code Act, 1992* or any relevant legislation as they may be amended or re-enacted from time to time; or
    - (ii) provides an unsatisfactory level of performance, in situ.
  - (c) the applicant, or the material, system or building design that is the subject matter of this authorization, has failed to comply with any of the Specific Terms and Conditions set out in this Authorization; or

- (d) any Ontario Building Code provision relevant to this Authorization has been amended or remade.

Dated at Toronto on this 26th day of July 2001

**BUILDING MATERIALS EVALUATION COMMISSION**

per: Rashmi Nathwani, Chairman